

PER 20090001

April 27, 2010

MAIN FILE**Terracon**

Water Permit Division, Office of Environmental Services
 LA Department of Environmental Quality
 P.O. Box 4313
 Baton Rouge, Louisiana 70821-4313

original to

copy to

Telephone: 225.219.3079
 Attn: Ms. Angela Marse
 E-mail: angela.marse@la.gov

RE: **Additional Information Request for Town of Independence Wastewater Treatment Facility located on Cason Road, Independence, Tangipahoa Parish**
AI# 33911, LPDES#LA0042544
Terracon Project No.: EH109020

Dear Ms. Marse:

On behalf of the Town of Independence, Terracon Consultants, Inc. (Terracon) appreciates the opportunity to provide this additional information regarding the Town of Independence Wastewater Treatment Facility. This information was requested by your office in a letter dated January 27, 2010. Based on public responses received regarding the draft Louisiana Pollution Discharge Elimination System (LPDES) permit, it was determined that to satisfy public trustee requirements of the Louisiana Constitution, an Environmental Impact Questionnaire is necessary to move forward with the renewal process for the Town of Independence LPDES permit. The Town of Independence believed it to be common knowledge that major repair/replacement work is required to increase the efficiency of the Town's treatment facility and provide additional capacity to sustain healthy economic growth. As a result, please find the attached Preliminary Engineering Report (PER) submitted in November 2009 to the United States Department of Agricultural (USDA) as part of a Rural Utility Services (RUS) grant application. The PER evaluates the need for the treatment facility improvements and considers several alternatives to reach the desired goal. In addition to the PER, provided below are responses to the Environmental Impact Questionnaire.

1. Have the potential and real adverse environmental effects of the proposed facility been avoided to the maximum extent possible?

The Town of Independence Wastewater Treatment Facility has been in operation since 1997. The facility services all residential, municipal, and commercial customers within the town limits in addition to several customers outside the town limits. The facility presses approximately 57,000 gallons of decanted sludge into two 20-yard roll off boxes that are removed from the facility once per month for proper disposal. In addition, as part of the treatment process, the facility uses approximately six 150-pound cylinders of chlorine per month. The current processes utilized to handle the waste sludge and



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Geotechnical

Environmental

Construction Materials

Facilities

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chlorine has proven effective in protecting the environment; and as such, no additional protective measures are believed to be warranted.

More important to the renewal of the Town's LPDES permit, the facility's outfall stream consists of treated wastewater discharges to a stream serving as a tributary to the Tangipahoa River. The amount and type of wastes transported in the outfall water are dependent on the effectiveness of the treatment facility. Since operation of this facility began in 1997, this discharge was permitted by the LDEQ under LPDES Permit No. LA 0042544. However, adverse environmental effects have been documented as a result of inefficiencies of the current treatment facility, in addition to industrial discharges overloading the treatment facility. This has been acknowledged by the Town of Independence. As a result, new Town leadership employed Mr. John Henson, maintenance supervisor, to maximize plant efficiency and bring the treatment facility into compliance. The extensive efforts put forth by Mr. Henson and his team has significantly improved the treatment facility effluent quality. In addition, Doran Seapak, a shrimp packaging plant discharging the treatment facility, was required by the Town to perform pretreatment, including recycling of water. The Town has set effluent limits for BOD, TSS, and CBOD for Doran Seapak, and has implemented spot monitoring of the facility's effluent to ensure effective pretreatment.

Furthermore, a USDA RUS Grant for \$4,675,000 has been submitted that includes replacement of the current treatment plant and substantial upgrades to the facilities collection lines; in an effort to exceed the effluent standards required in the LPDES permit. Specific improvements are detailed in the PER submitted along with the application for the grant.

2. Does a cost benefit analysis of the environmental-impact costs balanced against the social and economic benefits of the proposed facility demonstrate that the latter outweighs the former?

As detailed in the PER, the current treatment facility was installed in 1997 with no major improvements since that time. During a recent evaluation of the treatment facility, it was determined the current treatment facility's collection lines are overwhelmed with leaking sewer mains and service lines. This has resulted in infiltration of stormwater and groundwater and hence, overloading of the treatment facility during periods of substantial rainfall. During times when the treatment facility is overloaded, the wastewater being discharged does not regularly meet the effluent standards described in the LPDES permit.

The proposed repairs/replacements for the facility will enable the facility to exceed the effluent standards, and thus prevent any adverse environmental impact. The 723 customers of the treatment facility rely on the operation of this facility to adequately treat the wastewater in a manner as to be protective of human health and the environment.

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Additionally, in order for the town to support local commercial and industrial economic growth, an upgraded treatment facility is needed. As indicated in the PER, in conjunction with the sewer upgrades, planned water system improvements will include installation of water meters and hence, a new sewer rate schedule replacing the \$16.00 per month flat rate previously charged. This will result in an increase in sewer use fees to the residential population of Independence; however, the benefit of these upgrades will reduce the potential negative impacts to the environmental and human health, and therefore, outweigh the cost benefit of not completing the upgrades.

Due to the magnitude of repairs and replacements needed, each alternative required a significant sum of money to implement; however, it has been recognized by the Town of Independence that the treatment facility's effluent limits developed by LDEQ are protective of human health and the environment and must be adhered to despite the significant cost. Please refer to the attached PER for specific costs/benefit analysis.

3. Are there alternative projects that would offer more protection to the environment than the proposed facility without unduly curtailing nonenvironmental benefits?

Because of the significant repairs/replacement needed by the facility, and as required by the USDA RUS grant application, several alternatives were evaluated for repairing/replacing the treatment plant and the collection lines. The existing facility was originally designed to meet the effluent requirements specified in its LPDES permit; however, the combination of the facility reaching the end of its expected useful life and increase in customers, has resulted in multiple permit excursions over the past three years. Because it has been determined that the existing facility requires significant repairs and replacements, several alternative projects were evaluated to determine the most economic path to reach the desired goal of protecting human health and the environment, while sustaining healthy economic growth. Please refer to the attached PER for details regarding the alternative projects evaluated. After a thorough review of the alternatives, the Town of Independence has identified none of the alternatives would provide more protection to the environment than the proposed project.

4. Are there alternative sites that would offer more protection to the environment than the proposed facility without unduly curtailing nonenvironmental benefits?

The current facility has been operating in-place for over 10 years. Any alternative location of the facility or portion of the collection system, would potentially have a negative impact to the environment, by disturbing green land and ultimately discharging to the same segment of the Tangipahoa River. Since the facility is currently active, relocation of the treatment facility is not a feasible option. In addition to the acquisition of an alternative site, replacement of a portion of the facility's collection system would result in significantly higher costs.

05/03/2010 MON 16:11 FAX 985 878 4568 INDEPENDENCE CITY HALL

001/001

04/27/2010 TUE 10:37 FAX 225 344 6346 Terracon Consultants

005/005

Additional Information Request for Town of Independence Wastewater Treatment Facility
Cason Road, Independence, Tangipahoa Parish
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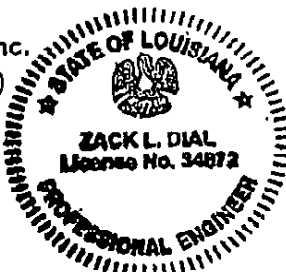
5. Are there mitigating measures that would offer more protection to the environment than the facility as proposed without unduly curtailing nonenvironmental benefits?

Mitigating measures to the current treatment facility have already been addressed in the attached PER. The Town of Independence is aware that significant upgrades and repairs are required to protect human health and the environment. The proposed upgrades to the current facility, as detailed in the PER, will mitigate the potentially adverse impacts that are occurring to the environment. Due to the anticipated low potential of negative environmental impacts from the upgrades proposed to the facility, no additional mitigative measure will be necessary.

Terracon and the Town of Independence thanks LDEQ in advance for their assistance with this matter. If you have any questions or comments or require additional services, please contact us at your convenience.

Sincerely,
Terracon Consultants, Inc.

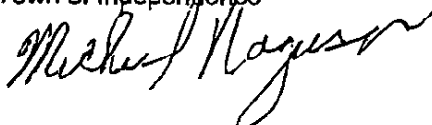

Zack L. Dial, P.E.
Project Engineer



LAC 33:IX.2503 – Responsible Official Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who managed the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations"

Honorable Michael Ragusa, Mayor
Town of Independence



Attachment : Preliminary Engineering Report

Reliable ■ Responsive ■ Convenient ■ Innovative

PRELIMINARY ENGINEERING REPORT

SEWER SYSTEM IMPROVEMENTS

for

TOWN OF INDEPENDENCE Louisiana

Michael A. Ragusa, Mayor

Aldermen

Parnell "Butch" Baham , Mayor Pro Tem

Richard Navarra

Louis L. Joseph

Larry Cardaronella

Michael Muscarello

Robin Dagro, Clerk

Julie Parnell, Assistant Clerk

John Henson, Maintenance Supervisor

Prepared by:

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November 2009

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EXHIBITS

- A. FEMA Flood Maps
- B. Corporate Limits Map – Town of Independence
- C. Sanitary Sewer Collection System Map – Town of Independence [attached separately]
- D. “Annual Financial Statements FYE June 30, 2008” prepared by Anthony Baglio, CPA
- E. Sewer Revenue Analysis
- F. Proposed Sewer Improvements – Town of Independence [attached separately]
- G. Vicinity Map

PRELIMINARY ENGINEERING REPORT

Sanitary Sewer System Improvements

Town of Independence

1. GENERAL

The Town of Independence, Louisiana is located at the junction of Louisiana Highway 40 and United States Highway 51 in Tangipahoa Parish. Tangipahoa Parish is predominately rural, with agriculture and forestry being the main industries. The Town of Independence was incorporated in 1880 and is one of several incorporated communities in Tangipahoa Parish.

The Town of Independence is centrally located in the Parish. The corporate limits of the town encompass approximately 2.2 square miles (note attached "Exhibit B – Corporate Limits").

Since 1997, there have been no major improvements to the sanitary sewer system. In 1997, improvements were completed in the following areas:

- a. Construction of a new wastewater treatment plant on Cason Road;
- b. Construction of a new lift station on Cason Rd.;
- c. Upgraded lift station on Vacarro Street;
- d. Upgraded lift station on Pine Street;
- e. Installed 10" force main from the Vacarro Street lift station to the treatment plant; and
- f. Installed 4" force main from the new Cason Road lift station to the treatment plant.

The existing sanitary sewer collection system is rampant with leaking sewer mains and service lines. These problems are exacerbated during moderate to heavy rainfall events indicating hydraulic overloading.

While efforts by the Town personnel have attempted to remedy the "leaking sewer line" problem, the results have been minimal, due primarily to the magnitude and elusive nature of the problem. Typical source of Infiltration/Inflow (I/I) problems include roots in the line, exposed pipes, illegal overflows and cross connections, separated joints, collapsed joints, open abandoned service lines, faulty clean-outs, and broken pipes exposed in ditches.

A combination of factors including excessive infiltration and consistently poor wastewater treatment results have prompted this application to perform a Sanitary Sewer Evaluation Survey (SSES), multiple lift station upgrades, major sewer line rehabilitation and wastewater treatment plant upgrades throughout the Town of Independence.

The six (6) alternative solutions include the following:

- (1) Rehabilitate existing sanitary sewer collection system.
- (2) Construction of a completely new gravity sanitary sewer collection system.
- (3) Construction of a completely new low pressure sanitary sewer collection system.
- (4) Upgrade existing wastewater treatment plant.
- (5) Construction of a completely new package treatment plant.
- (6) Construction of a completely new SBR treatment plant.

In accordance with USDA Rural Utilities Service Bulletin 1780-3, this Preliminary Engineering Report – Sanitary Sewer System Improvements, attempts to comply with current USDA regulations to evaluate the needs of the Town of Independence, and offer solutions to the problems.

2. PROJECT PLANNING AREA

a. Location

The Town of Independence encompasses approximately 2.2 square miles. Specific project location(s) are described as follows:

- Miscellaneous Lift Stations: Three (3) lift stations located along various public road right-of-ways (note attached "Exhibit C – Sanitary Sewer Collection System Map").
- Miscellaneous Wastewater Collection Lines: Located along various public road right-of-ways (note attached "Exhibit C – Sanitary Sewer Collection System Map").
- Wastewater Treatment Facility: Located on Cason Road (note attached "Exhibit C – Sanitary Sewer Collection System Map").

b. Environmental Resources Present

Preliminary environmental responses indicate no significant negative environmental impacts are anticipated as a result of the planned project.

The wastewater system now serves about 723 customers, with 6 residing outside of corporate limits. The majority of customers (669) are single family residential. The minority of customers (54) are comprised of non-residential/commercial customers, including schools, churches, apartment complexes, and small commercial establishments.

The topography of the proposed project is generally flat. The average elevation is 80' above mean sea level. Land use is dominated by residential land uses and one main corridor of commercial establishments along United States Highway 51. Land uses are tabulated as follows:

<u>Table 1 - Land Use</u>	
(a) Single family residential sites (less than 1 acre)	70%
(b) Single family residential (1-10 acres)	5%
(c) Farms, agricultural and livestock (10-40 acres)	5%
(d) Commercial (including schools and churches)	10%
(e) Roads and other public lands	10%

Please review the attached Environmental Report for more details on the environmental resources that are present.

c. Growth Areas and Population Trends

According to the 2000 United States Census, the population of the Town of Independence was 1,724 people. The 2009 population of the Town of Independence is 1,796 people. This is an increase of four and two tenths percent (4.2%) over nine years or roughly one half percent (0.5%) per year. The population projection for the twenty (20) year design life for the captioned project is therefore ten percent (10%) or an estimated population of approximately 1,975 people.

The town has experienced minimal residential growth in the past nine (9) years. Increases in sewer usage have been primarily due to an increase in commercial and industrial activity.

3. EXISTING FACILITIES

a. Location Map

Attached "Exhibit B – Corporate Limits Map", provides the schematic layout and general service area of the Town of Independence.

b. History

Since 1997, there have been no major improvements to the sanitary sewer system. In 1997, improvements were completed in the following areas:

- a. Construction of a new wastewater treatment plant on Cason Road;
- b. Construction of a new lift station on Cason Rd.;
- c. Upgraded lift station on Vacarro Street;
- d. Upgraded lift station on Pine Street;
- e. Installed 10" force main from the Vacarro Street lift station to the treatment plant; and
- f. Installed 4" force main from the new Cason Road lift station to the treatment plant.

c. Condition of Facilities

i. Collection System

The town currently has fourteen (14) lift stations in service.

<u>Table 2 - LIFT STATION INVENTORY</u>
Designation
Lift Station A – Cason Road
Lift Station B – Vacarro Street
Lift Station C – Allen Street
Lift Station D – Laroussa Lane
Lift Station E – East Railroad Avenue
Lift Station F – East Eighth Street
Lift Station G – Pine Street
Lift Station H – Alessi Lane
Lift Station I – Robinson Street
Lift Station J – Kemp Street
Lift Station K – Crossover Road
Lift Station L – U. S. Highway 51
Lift Station M – Frazier Lane
Lift Station N – Wastewater Treatment Plant

Some of the Town's lift stations are deficient in one area or a combination of areas. These areas include, but are not limited to simplex pumping stations, undersized pumping stations and unprotected lift stations

3. EXISTING FACILITIES - (continued)

The town services its customers through a wastewater collection system network comprising about 80,503 linear feet (LF) [= 15.2 miles] of 8" – 15" diameter gravity flow sewer mains:

Table 3 - WASTEWATER COLLECTION SYSTEM INVENTORY			
Gravity Flow Collection Mains			
8"	10"	12"	18"
63,373 LF	565 LF	16,000 LF	565 LF

The majority of the town's wastewater collection system is in poor condition and infiltration is of major concern. Under normal operation during a dry period, lift stations function properly and very few problems arise. However, during moderate to heavy rainfall events, sewer back ups and excessive lift station run times occur. The predominant deficiency has been the necessity to perform numerous sewer line point repairs and multiple lift station repairs.

ii. Wastewater Treatment Facility

The existing wastewater treatment facility is a Return Activated Sludge (R.A.S.) system, with a design flow rate of 0.7 MGD (2.0 MGD peak). A Louisiana Department of Environmental Quality "Compliance Order & Notice of Potential Penalty" indicates that the town has exceeded effluent limitations and design capacity on numerous occasions. These excursions have included, but are not limited to high CBOD₅, Fecal Coliform, and Total Suspended Solids.

The existing headworks is in need of numerous repairs. In addition to the need for expansion, the bar screen needs to be replaced and the grit chamber is inoperable. The aeration basin also needs to be expanded to handle the daily flows of the town.

The facility originally used ultraviolet light as the secondary treatment. Since the construction of the existing facility, the ultraviolet treatment has been abandoned and the post-aeration basin has been converted and used as a chlorine contact chamber.

d. Financial Status of any Existing Facilities

In the past, the town has assessed a flat sewer user fee of \$16.00 per month for the vast majority of sewer customers, which are residential customers. This rate structure has not been adequate and has forced the town to balance the sewer account with excess sales tax revenue. This proposed sewer project is to be done in conjunction with a proposed water system improvement project in which water meters will be installed on all residential and commercial customers. A new sewer rate schedule will be adopted and the sewer account, as well as the water account will operate in positive cash flow manner.

4. NEED FOR PROJECT

a. Health, Sanitation, and Security

The general condition and structural integrity of the sanitary sewer collection system is questionable. During moderate rainfall events, the system becomes surcharged. This is due to the inflow and infiltration. This deficiency is in violation of State Sanitary Code, Section 13:004-1, 13:004-2 and 13:008-2 and Ten State Standards, Section 32. Additionally, this deficiency constitutes a general risk to the health and safety of the public. The proposed project will significantly reduce the threat to health due to excessive bacteria, solids, and BOD being discharged from the Town's sewer treatment facility due to hydraulic overloading. The project will also bring the Town's sewer system in compliance with the State Sanitary Code and the Ten States Standards.

b. System O & M

System operation & maintenance is currently performed by fulltime employees with occasional assistance from local contractors (for minor line repairs/extensions). One (1) of the seven (7) fulltime field/maintenance personnel holds valid and current state wastewater operator certification. The system is visually clean and well-kept.

The primary system operating/maintenance concern is based on the fact that during heavy rainfall events the wastewater collection system is incapable of conveying the entire hydraulic load to the wastewater treatment facility and the hydraulic overloading at the treatment facility causes a discharge effluent that is high in bacteria, solids and BOD.

c. Growth

According to the 2000 United States Census, the population of the Town of Independence was 1,724 people. The 2009 population of the Town of Independence is 1,796 people. This is an increase of four and two tenths percent (4.2%) over nine years or roughly one half percent (0.5%) per year. The population projection for the twenty (20) year design life for the captioned project is therefore ten percent (10%) or an estimated population of approximately 1,975 people.

5. ALTERNATIVES CONSIDERED

5.1 Collection System Alternatives

a. Description

Three (3) alternative solutions were evaluated:

- (1) Rehabilitate existing sanitary sewer collection system.
- (2) Construction of a completely new gravity sanitary sewer collection system.
- (3) Construction of a completely new low pressure sanitary sewer collection system.

b. Design Criteria

Alternative "(1) Rehabilitate existing sanitary sewer collection system":

The Town of Independence is in violation of the Ten States Standards (TSS) section 42.3 which states that dual pumping systems shall be utilized for pumping stations. This alternative would involve the upgrade of two (2) existing simplex and duplex lift stations with new duplex pumping equipment and associated upgraded control panels. Additionally, this project proposes to increase the capacity of the sanitary sewer lift station in the vicinity of Pine St. and W. Seventh St. with associated yard piping and electrical work. Because of the holistic rehabilitation nature of this project, all other proposed improvements are necessary to reduce infiltration/inflow and reduce hydraulic over loading at the wastewater treatment facility. An SSES is necessary to pinpoint problem areas throughout the sanitary sewer collection system so that proper corrective action can be taken and funds can be used in the most efficient manner.

Alternative "(2) Construction of a completely new gravity sanitary sewer collection system":

Construction would involve new gravity sewer lines, force mains and manholes. Upgrades to existing lift stations and construction of the lift station would need to be performed at the aforementioned locations.

Alternative "(3) Construction of a completely new low pressure sanitary sewer collection system":

Construction would involve new force mains and pumps for each individual service connection. Upgrades to existing lift stations would need to be performed at the aforementioned locations.

c. Map

See "Exhibit C" of this PER for the schematic layout and overall site plan of the town and the sanitary sewer collection system.

d. Environmental Impacts

As will be shown in the "Environmental Review Record", the project will have no adverse impact on wetlands, flood hazard areas, endangered species, historical/archaeological properties, etc.

5. ALTERNATIVES CONSIDERED - (continued)

e. Land Requirements

There will be no new land acquisitions due to the fact all work for all proposed alternatives will occur within existing town property, town street and state highway right-of-ways.

f. Construction Problems

There are three (3) potential problems related directly to construction for all considered alternatives:

- (1) Noise during construction.
- (2) Traffic control during construction
- (3) Construction debris

Construction will be limited to regular working hours.

Traffic control devices and measures will be required by the specifications and contract documents, and will be utilized as to maintain a minimum disruption to local traffic patterns.

Construction debris will be required by the specifications and contract documents to be collected, hauled off the site, and disposed of in accordance with local, state and federal regulations.

g. Cost Estimates

Project costs to rehabilitate the existing sanitary sewer collection system are as follows:

Table 4A Alternative (1) Cost Breakdown	
<i>Alternative "(1) SSES/I+I Repairs/Rehabilitation of Sanitary Sewer System":</i>	
Construction	\$ 2,275,000
Non-Construction	225,000
TOTAL Capital Costs	\$ 2,500,000
Additional Operating & Maintenance Costs*	\$ 0

* Estimated change in annual O&M from current O&M costs

Project costs to construct a new sanitary sewer collection system are as follows:

Table - 4B Alternative (2) Cost Breakdown	
<i>Alternative "(2) Construction of completely new gravity sanitary sewer collection system":</i>	
Construction	\$ 12,000,000
Non-Construction	1,180,000
TOTAL Capital Costs	\$ 13,180,000
Additional Operating & Maintenance Costs*	\$ 0

* Estimated change in annual O&M from current O&M costs

5. ALTERNATIVES CONSIDERED - (continued)

Project costs to construct a new sanitary sewer collection system are as follows:

Table - 4C Alternative (3) Cost Breakdown	
<i>Alternative "(3) Construction of completely new low pressure sanitary sewer collection system":</i>	
Construction	\$ 5,100,000
Non-Construction	400,000
TOTAL Capital Costs	\$ 5,500,000
Additional Operating & Maintenance Costs*	\$ 60,000

* Estimated change in annual O&M from current O&M costs

h. Advantages/Disadvantages

Alternative "1 – Rehabilitate existing sanitary sewer collection system": This alternative has the advantage in that the primary rehabilitation work is accomplished internally or within the existing collection system. This fact avoids, or greatly reduces, the need to open cut streets and therefore the "Rehabilitation" alternative results in:

1. Minimal traffic disruption and
2. Minimal costly street repairs

Additionally, the overall cost of this alternative is minimal and it brings the Town of Independence into compliance with the Ten States Standards (TSS) section 42.3 or the State's Sanitary Code section 13:004-1, 13:004-2, and 13.008-2. The disadvantage of this alternative is that rehabilitation of an existing system will never completely (100%) eliminate the problem of infiltration and inflow.

Alternative "2 – Construction of New Gravity Sanitary Sewer Collection System": The "New Construction" alternative has the advantage over the "Rehabilitation" alternative in that the new lines are 100% leak free. This results from a rigid QA/QC program. It also brings the Town of Independence into compliance with the applicable TSS and State Sanitary Code sections previously mentioned. The disadvantage of this alternative is the high cost of a completely new system. Also, construction of this alternative requires more construction activity which results in more disruption to the residents which would require greater construction coordination between the contractor, Town and engineer.

Alternative "3 – Construction of New Low Pressure Sanitary Sewer Collection System": The "New Construction" alternative has the advantage over the "Rehabilitation" alternative in that the new lines are 100% leak free. This results from a rigid QA/QC program. It also brings the Town of Independence into compliance with the applicable TSS and State Sanitary Code sections previously mentioned. The disadvantage of this alternative is the high cost of a completely new system and high O&M costs. Also, construction of this alternative requires more construction activity which results in more disruption to the residents which would require greater construction coordination between the contractor, Town and engineer.

5. ALTERNATIVES CONSIDERED - (continued)

5.2 Treatment Plant Alternatives

a. Description

Three (3) alternative solutions were evaluated:

- (4) Upgrade existing wastewater treatment plant.
- (5) Construction of a completely new package treatment plant.
- (6) Construction of a completely new SBR treatment plant.

b. Design Criteria

Alternative "(4) Upgrade existing wastewater treatment plant":

The Town of Independence is in violation of the State Sanitary Code, Section 13.008-2 which states that community sewerage systems shall be operated and maintained so as to consistently produce effluent quality meeting minimum requirements of the secondary treatment standard. According to the LA DEQ, the town has repeatedly exceeded effluent limitations and design capacity. This alternative would involve the installation of a new headworks filtering system, construction of a new disinfection tank, and the installation of an emergency electrical generator. Additionally, this project proposes to increase the capacity of the wastewater treatment plant from 0.7 MGD to 0.9 MGD with the construction of additional aeration basins.

This existing plant was constructed in 1997. Normal operational life of most equipment is ten (10) years. All of the existing plant equipment is in excess of ten (10) years old, therefore, anything that is not replaced in this project will need repair or replacement in the near future.

Alternative "(5) Construction of a completely new package treatment plant":

This project proposes to increase the capacity of the wastewater treatment plant from 0.7 MGD to 0.9 MGD with the construction and installation of a new package treatment plant. This alternative would involve the installation of a new headworks filtering system, construction of a new disinfection tank, installation of an emergency electrical generator, and abandonment of the existing wastewater treatment plant. Estimated operational life of a new package system is ten (10) years.

Alternative "(6) Construction of a completely new SBR treatment plant":

This project proposes to increase the capacity of the wastewater treatment plant from 0.7 MGD to 0.9 MGD with the construction and installation of a new SBR treatment plant. This alternative would involve the installation of a new headworks filtering system, construction of a new disinfection tank, installation of an emergency electrical generator, and abandonment of the existing wastewater treatment plant. Estimated operational life of a new package system is ten (10) years.

c. Map

See "Exhibit C" of this PER for the schematic layout and overall site plan of the town and the sanitary sewer collection system.

5. ALTERNATIVES CONSIDERED - (continued)

d. Environmental Impacts

As will be shown in the "Environmental Review Record", the project will have no adverse impact on wetlands, flood hazard areas, endangered species, historical/archaeological properties, etc.

e. Land Requirements

There will be no new land acquisitions due to the fact all work for all proposed alternatives will occur within existing town property, town street and state highway right-of-ways.

f. Construction Problems

There are three (2) potential problems related directly to construction for all considered alternatives:

- (1) Noise during construction.
- (2) Construction debris

Construction will be limited to regular working hours.

Construction debris will be required by the specifications and contract documents to be collected, hauled off the site, and disposed of in accordance with local, state and federal regulations.

g. Cost Estimates

Project cost to upgrade the existing wastewater treatment plant are as follows:

Table 4D- Alternative (4) Cost Breakdown	
<i>Alternative "(4) Upgrade existing wastewater treatment plant":</i>	
Construction	\$ 1,700,000
Non-Construction	160,000
TOTAL Capital Costs	\$ 1,860,000
Additional Operating & Maintenance Costs*	\$ 20,000

* Estimated change in annual O&M from current O&M costs

Project costs to construct a new package treatment plant are as follows:

Table - 4E Alternative (5) Cost Breakdown	
<i>Alternative "(5) Construction of completely new package treatment plant":</i>	
Construction	\$ 3,810,000
Non-Construction	300,000
TOTAL Capital Costs	\$ 4,110,000
Additional Operating & Maintenance Costs*	\$ 50,000

* Estimated change in annual O&M from current O&M costs

5. ALTERNATIVES CONSIDERED - (continued)

5. ALTERNATIVES CONSIDERED - (continued)

Project costs to construct a new SBR treatment plant are as follows:

Table - 4F Alternative (6) Cost Breakdown	
<i>Alternative "(6) Construction of completely new SBR treatment plant":</i>	
Construction	\$ 1,900,000
Non-Construction	175,000
TOTAL Capital Costs	\$ 2,075,000
Additional Operating & Maintenance Costs*	\$ 0

* Estimated change in annual O&M from current O&M costs

h. Advantages/Disadvantages

Alternative "4 – Upgrade Existing Wastewater Treatment Plant": This alternative has the advantage in that the wastewater treatment plant will meet the permitted effluent limitations and design capacity with upgraded equipment and minor modifications to the existing plant. The disadvantage of this alternative is that the existing wastewater treatment plant and equipment to remain was installed over ten years ago. Normal operational life of mechanical equipment is ten years; therefore, most of the existing equipment may need repairs or replacements in the near future.

Alternative "5 – Construction of New Package Treatment Plant": This alternative has the advantage in that the wastewater treatment plant will meet the permitted effluent limitations and design capacity with new equipment. It also brings the Town of Independence into compliance with the applicable TSS and State Sanitary Code sections previously mentioned. The disadvantage of this alternative is the high capital cost of a package plant. Also, the O&M costs due to this alternative are much higher than the others. The O&M costs are mainly for the blowers, filters and backwash pumps required with this type of treatment system. Estimated operational life for this system is ten (10) years.

Alternative "6 – Construction of New SBR Treatment Plant": This alternative has the advantage in that the wastewater treatment plant will meet the permitted effluent limitations and design capacity with new equipment. This system has low O&M costs and it will bring the Town of Independence into compliance with the applicable TSS and State Sanitary Code sections previously mentioned. The disadvantage of this alternative is having to abandon the existing system. Estimated operational life for this system is ten (10) years.

6. SELECTION OF AN ALTERNATE

6.1 Collection System Alternatives

a. Present Worth Cost Analysis

Three (3) alternative solutions were evaluated:

1. Rehabilitate existing sanitary sewer collection system.
2. Construction of a completely new gravity sanitary sewer collection system.
3. Construction of a completely new low pressure sanitary sewer collection system.

A Present Worth Matrix shows the descending order (2009 "value") of each alternative based on the "real" federal discount rate from Appendix C of OMB Circular A-94 for 20 years at a rate of 2.9%. This rate was multiplied by the annual O&M cost to yield the converted present worth. The converted present worth in addition to the capital cost yields the total present worth.

Table 5A - Present Worth Matrix				
Alternative	Annual O & M	Converted to "Present Worth"	Capital Costs	Total Present Worth
(2)	\$ 0	\$ 0	\$13,180,000	\$13,180,000
(3)	\$ 60,000	\$ 900,957.68	\$5,500,000	\$6,400,957.68
(1)	\$ 0	\$ 0	\$2,500,000	\$2,500,000

The advantage of "Alternative One (1)" is apparent and necessary in determining the needs for repair of the existing sanitary sewer collection system. Additionally, it requires no additional O&M expenditures. All of these alternatives will bring the Town of Independence into compliance with the aforementioned TSS and State Sanitary Code; however Alternative One (1) will do so at a significantly lower capital expenditure.

Based on the foregoing, the selected alternative is:

(1) Rehabilitate existing sanitary sewer collection system.

6. SELECTION OF AN ALTERNATE - (continued)

6.2 Treatment Plant Alternatives

a. Present Worth Cost Analysis

Three (3) alternative solutions were evaluated:

4. Upgrade existing wastewater treatment plant.
5. Construction of a completely new package treatment plant.
6. Construction of a completely new SBR treatment plant.

A Present Worth Matrix shows the descending order (2009 "value") of each alternative based on the "real" federal discount rate from Appendix C of OMB Circular A-94 for 20 years at a rate of 2.9%. This rate was multiplied by the annual O&M cost to yield the converted present worth. The converted present worth in addition to the capital cost yields the total present worth.

Table 5B - Present Worth Matrix				
Alternative	Annual O & M	Converted to "Present Worth"	Capital Costs	Total Present Worth
(5)	\$ 50,000	\$ 750,798.07	\$4,110,000	\$4,860,798.07
(4)	\$ 20,000	\$ 300,319.23	\$1,860,000	\$2,160,319.23
(6)	\$ 0	\$ 0	\$2,075,000	\$2,075,000

The advantage of "Alternative Six (6)" is that it will provide the needed improvements and expansion with completely new equipment. Additionally, it requires no additional O&M expenditures and has a lower "Total Present Worth" than Alternatives Four (4) and Five (5), as seen in the above "Table 5B—Present Worth Matrix". All of these alternatives will bring the Town of Independence into compliance with the aforementioned TSS and State Sanitary Code; however Alternative Six (6) will do with new equipment and a lower "Total Present Worth".

Based on the foregoing, the selected alternative is:

(6) Rehabilitate existing sanitary sewer collection system.

7. PROPOSED PROJECT (RECOMMENDED ALTERNATIVE)

The work recommended to accomplish the wastewater collection system improvements, and proposed to be included in a USDA RUS application for \$4,675,000.00 involves the following:

- (1) Perform a Sewer System Evaluation Survey (SSES).
- (2) Miscellaneous improvements and upgrades to existing lift stations.
- (3) Install approximately 30,000' of 8"-18" cured-in-place pipe (CIPP) lining.
- (4) Perform miscellaneous wastewater collection system improvements including, but not limited to the following:
 - a. Multiple point repairs to the existing system
 - b. Installation of new manholes
 - c. Modifications to existing manholes.
- (5) Perform miscellaneous wastewater treatment plant improvements including, but not limited to the following:
 - a. Construction and installation of a new SBR treatment system, increasing the capacity of the plant from 0.7 MGD to 0.9 MGD
 - b. Installation of a new headworks filtering system
 - c. Construction of a disinfection contact tank
 - d. Installation of an emergency electrical generator

a. Project Design

- (1) Collection System Layout: The collection system layout is detailed in "Exhibit F".
- (2) The existing lift stations will be rehabilitated in two ways:
 - i. Simplex lift stations will be redesigned as duplex stations
 - ii. Existing undersized duplex lift stations will be redesigned for increased capacity.

The lift station locations are detailed in "Exhibit F".

- (3) Wastewater Treatment Plant upgrades will include the following:
 - i. Construction of a new SBR Treatment system, increasing the capacity of the plant from 0.7 MGD to 0.9 MGD
 - ii. Installation of a new headworks filtering system
 - iii. Construction of a disinfection contact tank
 - iv. Installation of an emergency electrical generator

The location of the existing wastewater treatment plant is shown in "Exhibit F".

7. PROPOSED PROJECT (continued)

b. Total Project Cost Estimate

The total project costs are estimated to be \$4,675,000 (\$4,175,000 construction/\$500,000 non-construction) based on "Table 6—Overall Project Budget" below:

Table 6 OVERALL PROJECT BUDGET SEWER SYSTEM IMPROVEMENTS Town of Independence				
1 November 2009				
<u>EXPENDITURES</u>				
<i>Construction Budget:</i>				AMOUNT
A. Wastewater Treatment Plant Improvements (WWTP)				\$ 1,760,000.00
B. Sewer System Evaluation Survey (SSES)				159,200.00
C. Infiltration/Inflow Repairs & Sewer System Rehabilitation (I/I)				1,964,625.00
D. Construction Contingencies				291,175.00
TOTAL Construction BUDGET:				\$ 4,175,000.00
<i>Other Costs:</i>				
E. Engineering Fees -	WWTP:	7.49%	\$ 1,900,000	\$ 142,310.00
	SSES:	11.29%	\$ 175,000	19,757.50
	I/I Repairs:	7.41%	\$ 2,100,000	155,610.00
F. PER (USDA RUS Study)		0.33%		13,777.50
G. RPR Fees -	WWTP:			28,726.07
	SSES:			9,575.36
	I/I Repairs:			31,917.86
H. Interest during construction (estimated)				55,000.00
I. Soil Borings/Lab Costs/QC				8,325.71
J. Legal Costs/cost of issue				25,000.00
K. Permits/Surveys				-
M. Administrative Costs - Labor Compliance				10,000.00
<i>Sub-Total "Other Costs":</i>				\$ 500,000.00
Total Project Budget [expenditures]:				\$ 4,675,000.00

7. PROPOSED PROJECT (continued)

Due to the nature of the proposed work and the need to have the Sanitary Sewer Evaluation and Survey results in hand prior to initiating the rehabilitation work, it is likely these improvements will be divided into three (3) separate contracts as follows:

1. Contract A – Wastewater Treatment Plant Improvements
2. Contract B – Sewer System Evaluation and Survey
3. Contract C – Infiltration/Inflow Repairs and Sewer Rehabilitation

Individual contract construction cost estimates have been prepared and presented in the following tables below:

1. "Table 6A – Contract A – Wastewater Treatment Plant Improvements"
2. "Table 6B – Contract B – Sewer System Evaluation and Survey"
3. "Table 6C – Contract C – Infiltration/Inflow Repairs and Sewer Rehabilitation"

Project costs estimates are based on representative unit prices for projects of similar scope and complexity:

Table 6A			
Project Budget			
Wastewater Treatment Plant Improvements			
Town of Independence			
1 November 2009			
Bid		Engineer's Estimate	
Item	Description	Estimated Quantity	Unit Price
1.	Install New SBR Treatment Plant	Lump Sum	Job
2.	Install Headworks Filtering System	Lump Sum	Job
3.	Construct Disinfection contact tank	115 CY	\$ 1,000.00
4.	Emergency Electrical Generator	Lump Sum	Job
5.	Yard Piping	Lump Sum	Job
6.	Electrical Work	Lump Sum	Job
Construction Cost Estimate [items "1." through "6."]:			\$ 1,760,000.00
Construction Contingencies		7.95%	\$ 1,760,000
"WWTP" Construction Budget			\$1,900,000.00

RPR Fee Calculations *		
Wastewater Treatment Plant Improvements		
Contract Term	270	Calendar Days
Contract Term	39	Weeks
Number of "Work Days"	193	Work Days
RPR hours per Work Day	3	HR
Total projected RPR hours	579	HR
RPR Rate [after 01/07]	49.65	per HR
Total RPR Fees - WWTP:	\$ 28,726.07	

7. PROPOSED PROJECT (continued)

Table 6B			
Project Budget			
Sewer System Evaluation Survey (SSES)			
SEWER SYSTEM IMPROVEMENTS			
Town of Independence			
1 November 2009			
Bid Item	Description	Contract Quantity	Engineer's Estimate UNIT PRICE EXTENSION
1.	SSES Report	Lump Sum	Job \$ 15,000.00
2.	Smoke Test Sanitary Sewer Mains	70,000 LF	\$ 0.50 35,000.00
3.	Clean & CCTV SS Lines	40,000 LF	2.10 84,000.00
4.	Inspect Sanitary Sewer Manholes	200 EA	70.00 14,000.00
5.	Root Removal	20 EA	285.00 5,700.00
6.	Dye-water flooding	10 EA	550.00 5,500.00
"SSES" Construction Cost Estimate (items "1." - "6."):			\$ 159,200.00
Construction Contingencies		9.03%	\$ 175,000 \$ 15,800.00
"SSES" Construction Budget			\$ 175,000.00

RPR Fee Calculations *		
Sewer System Evaluation Survey		
Contract Term	90	Calendar Days
Contract Term	13	Weeks
Number of "Work Days"	64	Work Days
RPR hours per Work Day	3	HR
Total projected RPR hours	193	HR
RPR Rate [after 01/07]	\$49.65	per HR
Total RPR Fees - SSES:	\$	9,575.36

7. PROPOSED PROJECT (continued)

Table 6C

Infiltration/Inflow Repairs, Sewer Rehabilitation, & Miscellaneous Upgrades

Schedule of Values & Construction Cost Estimate

SEWER SYSTEM IMPROVEMENTS

Town of Independence

1 November 2009

Bid Item	Description	Estimated Quantity	Engineer's Estimate	
			UNIT PRICE	EXTENSION
1. Mobilization		Lump Sum	Job	\$ 80,000.00
2. 8" Cured-in-Place Pipe (CIPP) lining		25,000 LF	\$ 30.00	750,000.00
3. 10" CIPP Lining		400 LF	32.00	12,800.00
4. 12" CIPP Lining		4,000 LF	35.00	140,000.00
5. 15" CIPP Lining		400 LF	45.00	18,000.00
6. 18" CIPP Lining		100 LF	60.00	6,000.00
7. Restore Remove Service		200 EA	150.00	30,000.00
8. Repair Protuding Service		25 EA	225.00	5,625.00
9. 8" Point Repair (0-6' deep)		15 EA	2,000.00	30,000.00
10. Extend 8" Point Repair (0-6' deep)		80 LF	150.00	12,000.00
11. 8" Point Repair (6-10' deep)		15 EA	2,200.00	33,000.00
12. Extend 8" Point Repair (6-10' deep)		80 LF	150.00	12,000.00
13. 10" Point Repair (0-6' deep)		1 EA	2,000.00	2,000.00
14. Extend 10" Point Repair (0-6' deep)		10 LF	150.00	1,500.00
15. 10" Point Repair (6-10' deep)		1 EA	2,300.00	2,300.00
16. Extend 10" Point Repair (6-10' deep)		10 LF	160.00	1,600.00
17. 12" Point Repair (6-10' deep)		4 EA	2,200.00	8,800.00
18. Extend 12" Point Repair (6-10' deep)		40 LF	175.00	7,000.00
19. 18" Point Repair (6-10' deep)		0 EA	3,000.00	-
20. Extend 18" Point Repair (6-10' deep)		0 LF	200.00	-
21. Install Service Line Point Repair		100 EA	1,000.00	100,000.00
22. Extend Service Line Point Repair		1,200 LF	25.00	30,000.00
23. Install 4" SS Cleanout over exist. svc.		100 EA	750.00	75,000.00
24. Abandon Point Repair (0-6' deep)		1 EA	1,500.00	1,500.00
25. Abandon Point Repair (6-10' deep)		1 EA	1,800.00	1,800.00
26. Abandon Point Repair (>10' deep)		1 EA	2,200.00	2,200.00
27. Patch, Seal, & Line SS Manhole		300 VF	150.00	45,000.00
28. Re-build SSMH Invert		2 EA	250.00	500.00
29. Re-set and Seal SSMH Cover		10 EA	400.00	4,000.00
30. Replace SSMH Frame & Cover		10 EA	600.00	6,000.00
31. Install new SS Manhole, complete		20 VF	350.00	7,000.00
32. Remove/replace Pavement (8" th.-reinf.)		250 SY	100.00	25,000.00

33. Haul-in/compact select BACKFILL	600 CY	15.00	9,000.00
34. Haul-in/grade Limestone	300 TN	60.00	18,000.00
35. Install SSMH Rain Inserts	80 EA	200.00	16,000.00
36. Install 5' diameter Concrete Wet Well	40 VF	1,200.00	48,000.00
37. Duplex pumping equip. LS K [50 gpm @ 30' TDH]	1 EA	30,000.00	30,000.00
38. Duplex pumping equip. LS M [50 gpm @ 30' TDH]	1 EA	30,000.00	30,000.00
39. Increase Hospital LS capacity [750 gpm @ 100' TDH]	1 EA	60,000.00	60,000.00
40. Abandon LS H	1 EA	15,000.00	15,000.00
41. Yard piping/valves; by-pass pumping	4 EA	15,000.00	60,000.00
42. Electrical work & controls	4 EA	15,000.00	60,000.00
43. Install above-grade station enclosure	10 EA	8,000.00	80,000.00
44. Install 6'H Chain link fencing & gates	200 LF	15.00	3,000.00
45. Miscellaneous Clearing & Sitework	Lump Sum	Job	5,000.00
46. Emergency Electrical Generators (various locations)	Lump Sum	Job	80,000.00
"I/I Repairs" Construction Cost Estimate (items "1." - "46."):			\$ 1,964,625.00
Construction Contingencies	6.45%	\$ 2,100,000	135,375.00
"I/I Repairs" Construction Budget			\$ 2,100,000.00

RPR Fee Calculations *		
Infiltration/Inflow Repairs & Sewer Rehabilitation		
Contract Term	300	Calendar Days
Contract Term	43	Weeks
Number of "Work Days"	214	Work Days
RPR hours per Work Day	3	HR
Total projected RPR hours	643	HR
RPR Rate [after 01/07]	\$49.65	per HR
Total RPR Fees - I/I:	\$ 31,917.86	

c. **Annual Operating Budget**

Past financial performance (2008) and projected income position have been evaluated and displayed in the following "Table 7—Statement of Income & Expenses":

Table 7				
Statement of Income & Expenses				
Town of Independence				
SEWER - \$4,675,000 LOAN				
				2009 Projected -(2)
REVENUE		2008 Actual - (1)	2009 Budget	with Improvements
	SEWER SERVICE CHARGES	\$ 148,582	\$ 150,000	\$ 418,260
	DELINQUENT CHARGES	-	1,000	1,000
	CONNECTION FEES	6,600	5,000	5,000
	INVESTMENT INCOME	10,821	10,000	10,000
	SALES TAX REV. [dedicated]	133,487	135,000	135,000
	MISCELLANEOUS INCOME	75	100	100
	TOTAL REVENUE:	\$ 299,565	\$ 301,100	\$ 569,360
EXPENSES				
	SALARIES AND EMPLOYEE BENEFITS	\$ 39,763	\$ 42,000	\$ 42,000
	OFFICE EXPENSE	17	100	100
	REPAIRS AND MAINTENANCE	35,493	25,000	20,000
	FUEL	371	500	500
	OPERATING SUPPLIES	-	100	100
	UTILITIES	56,741	50,000	50,000
	INSURANCE	2,441	2,500	2,500
	PROFESSIONAL FEES	25,627	25,000	25,000
	TREATMENT PLANT EXPENSES	20,727	20,000	15,000
	DEPRECIATION	90,571	90,571	105,526
	SALES TAX COLLECTOR FEE	862	1,000	1,000
	BAD DEBTS	-	100	100
	MISCELLANEOUS EXPENSES (4)	1	100	4,250
	INTEREST EXPENSES (existing debt)	39,105	39,105	39,105
	INTEREST EXPENSES (new debt) - (3)	-	-	261,290
	TOTAL Expenses:	\$ 311,719	\$ 296,076	\$ 566,471
NET INCOME (LOSS):		\$ (12,154)	\$ 5,024	\$ 2,889
NOTES:				
(1) RE: "Annual Financial Statements - FYE June 30, 2008", prepared by Anthony Baglio, CPA				
(2) Based on increase in SEWER user fees as follows:				
	Residential:	\$40.00 per month - 1st 3,000 gallons		
		\$3.00 per 1,000 gallons for all over 3,000 gallons		
	Commercial:	\$75.00 per month - 1st 3,000 gallons		
		\$3.00 per 1,000 gallons for all over 3,000 gallons		
(3) Based on \$4,675,000 USDA Rural Utilities Service loan (incl. 5% depreciation; 5% contingency)				
(4) Includes short-lived assets				

Debt Repayments

Existing debt repayments as per the annual financial report (Exhibit F, pg 20) is \$39,105. Future debt repayments for an RUS loan of \$4,675,000 taken for 40 years at an interest rate of 4.75 % is \$261,290.16 (see table 7 above)

Reserves

Debt Service Reserve is established at one-tenth (1/10) of annual debt repayment and is therefore \$26,129.02.

Short-lived Asset Reserve is listed as follows:

1. 0 – 5 Year
 - a. Weed eaters – 2 each at \$500.00 per each.
 - b. Snapper Mower – 1 each at \$1,000.00.
 - c. Sewer Jet Trailer – 1 each at \$2,500.00.
2. 5 – 10 Year
 - a. Ford Dump Truck – 1 each at \$5,000.00.
 - b. Chevrolet Suburban – 1 each at \$2,500.00.
3. 10 – 15 Year
 - a. Tractor with Bush Hog – 1 each at \$6,000.00.
 - b. ½ Ton Ford Truck – 1 each at \$10,000.00.
 - c. 580 Super K Backhoe – 1 each at \$20,000.00.

An audited Annual Financial Report was available for this analysis; prepared by Anthony Baglio, CPA, attached as “Exhibit D”.

Based on the above “Table 7”, sufficient income is available to support the loan by establishing rates as follows:

- (1) Establish the residential consumer minimum rate at \$40.00 and establish the overage consumption rate at \$3.00 per thousand gallons over the initial monthly consumption of 3000 gallons and
- (2) Establish the commercial consumer minimum rate at \$75.00 and establish the overage consumption rate at \$3.00 per thousand gallons over the initial monthly consumption of 3000 gallons.

Projected revenue spreadsheets are attached as “Exhibit E”. The projected revenue used in Table 7 above is based on establishing the minimum rate as stated above.

Further review of Table 7 reveals a projected \$2,889.00 net income.

8. CONCLUSIONS AND RECOMMENDATIONS

The \$4,675,000.00 needed for sewer system improvements can be accomplished based on the following recommendations:

A. Obtain a USDA RUS Loan in the principal amount of \$4,675,000.00.

- (1) Town of Independence commit to installation of meters for future billing purposes.
- (2) Town of Independence certify a *total customer count of 723 residential and commercial* sewer customers.
- (3) Town of Independence set its sewer user charges as follows:
 - i. The monthly *minimum residential user fee set at \$40.00 per month per customer* (\$44.50 per month average residential bill); and
 - ii. The monthly *minimum commercial user fee set at \$75.00 per month* (\$84.00 per month average commercial bill); and
 - iii. The monthly *user fee for all usage above 3,000 gallons set at \$3.00 per 1,000 gallons.*

Upon satisfactory compliance with the above conditions, it is the recommendation of the firm of Spangler Engineering, LLC, Consulting Civil Engineers, that the proposed SEWER SYSTEM IMPROVEMENTS [FY 2010] project as described herein be constructed.

Kiley F. Bates, P.E.